NOAA Deep Sea Coral Research and Technology Program's Field Research Region Selection and Fieldwork Planning Guidelines

(updated August 2015)

Introduction

NOAA is charged with implementing the Deep Sea Coral Research and Technology Program (DSCRTP; MSA Section 408) to inform the Regional Fishery Management Councils (Councils). Program activities are conducted under the guidance of the NOAA Strategic Plan for Deep-Sea Coral and Sponge Ecosystems: Research, Management, and International Cooperation.

The program has been funded at approximately $2.5M annually since 2010. The majority of this funding is directed to field research in two regions at a time. Given the high cost of deep-sea field operations, and to ensure the program has a major conservation impact at a regional scale, we support fieldwork for three consecutive years in a region at about $800K per year.

To date, the regions selected for DSCRTP-funded fieldwork are:

- 2009-11: Southeast (South Atlantic Fishery Management Council region)
- 2010-12: West Coast (Pacific Fishery Management Council region)
- 2012-14: Alaska (North Pacific Fishery Management Council region)
- 2013-15: Northeast (New England and Mid-Atlantic Fishery Management Council regions)
- 2015-17: Pacific Islands (Western Pacific Fishery Management Council region)

This document describes the program's process of prioritizing and planning for regional field research. Specifically, it lays out:

A. The criteria to prioritize regions for field research investment, and
B. The process for planning field research within a region.

In addition, these three-year field efforts are complemented by smaller-scale, non-fieldwork projects in all regions, designed to meet the DSCRTP mandate through analysis and management of existing information, outreach, and other targeted projects. These smaller-scale projects are solicited annually via an internal, NOAA-wide proposal process. Their selection criteria are listed in the annual RFP and not discussed in detail here.

A. Selecting Regions where Field Research will be Conducted

The Deep Sea Coral Research and Technology Program will solicit input from the NMFS Science Board, the Office of Ocean Exploration and Research, Coral Reef Conservation Program, the Office of National Marine Sanctuaries, and other cross-Line-Office partners to select the regions for future fieldwork investment. The program uses their input on the following criteria in the selection:

1. **Field research is needed in the region to directly inform anticipated Regional Fishery Management Council analyses that evaluate the need for, and have the potential to result in, significant protective measures for deep-sea coral and sponge ecosystems.** This is the

primary criterion because MSA directs the program to inform Council activities.
Potential Council actions considered here include:

   a. Designation of Deep Sea Coral Zones under the authorities of MSA Section 303(b)(2)(B). MSA specifically requires that locations of deep-sea corals be identified by the DSCRTP in order for designation and protection to occur.
   b. Identification of essential fish habitat (EFH) and habitat area of particular concern (HAPC), or development of conservation measures to protect EFH areas from adverse effects.
   c. Reduction in bycatch of deep-sea corals or sponges.

2. **Field research is needed in the region to inform other resource management decisions**, including:
   a. National Marine Sanctuary management plan revisions, condition reports, or boundary changes.
   b. Coastal and marine spatial planning.
   c. Other agency (e.g., Bureau of Ocean Energy Management) actions that affect deep-sea coral and sponge ecosystems.
3. **The region has important deep-sea coral ecosystems**, indicated by:
   a. Deep-sea coral areas that are designated as EFH or HAPC, where the importance of functional roles of coral and sponge species is recognized.
   b. Biodiversity (e.g., coral and sponge species richness, abundance of associated biota).
   c. Coral and sponge abundance, density, and rarity.
   d. Overall size of deep-sea coral areas (e.g., km^2).
4. **The region's deep-sea coral ecosystems are threatened by major human impacts that NOAA has the authority to manage**.
5. **There are opportunities that field research in the region can complement or leverage significant partnership resources**, such as investment from other NOAA programs, other federal agencies, and international partnerships.

B. Planning Field Research within a Region

B1. Planning meetings

In anticipation of DSCRTP-funded field research in a new region, two planning meetings should take place to ensure the research meets the MSA mandate and addresses the needs of the relevant Council and other managers. These meetings also enable the fieldwork to leverage financial and in-kind contributions from partners in the regions and across NOAA.

1. **Regional Research Priorities Workshop**: The program funds the region's NMFS Fisheries Science Center to organize a workshop.
   a. The workshop **objective** is to identify the region's top research needs regarding deep-sea corals, and to recommend actions to meet those needs. The result should inform the region's fieldwork science plan.

b. The workshop should take place **at least one year before** the fieldwork to allow time for the workshop results to be incorporated into the field science plan. This also allows the fieldwork team to secure the research tools (e.g., reserve a capable ROV, secure ship time) identified as most useful by the workshop participants.
c. The workshop is **organized by** the Fisheries Science Center with the help of a steering committee. The steering committee members should include representatives from OAR, NOS, and NMFS. Council representation on the steering committee is encouraged.
d. The workshop **participants** include key scientists conducting deep-sea coral research in the region; Council representative; OAR, NOS, NMFS Regional Office, and NMFS Science Center representatives; experts from relevant federal agencies; and other key partners.
e. The workshop **output** is a report documenting the priority research needs and actions recommended by the participants to meet those needs. The workshop organizer and steering committee are responsible for writing the report. Reports from previous workshops are available for reference on CoRIS.noaa.gov.

2. **Fieldwork team kick-off meeting**: Preferably one year before the first fieldwork season, the region's Fisheries Science Center should identify a lead for the three-year field research. The lead should organize a **fieldwork team** including representatives from OAR, NOS, NMFS Regional Office, and NMFS Science Center. The team's primary responsibility is to write a three-year field science plan (~15 pages) and supplement it annually with a more detailed implementation plan and detailed budget. In the program's experience, the three-year planning effort is best initiated at a face-to-face team meeting. Therefore we encourage the fieldwork team to meet in person to kick off the planning process.

B2. Guidelines on Developing the Science Plan

The primary objective of the three-year field research is to provide scientific information that the Council needs to enhance the conservation of deep-sea coral and sponge ecosystems. The information includes specific locations and ecological roles of deep-sea corals and sponges. The information should support the Council's conservation actions such as designation of Deep Sea Coral Zones under the MSA Section 303(b)(2)(B) authorities; identification of EFH and HAPC, and development of conservation measures to protect EFH areas from adverse effects; and reduction in bycatch of deep-sea corals and sponges.

The secondary objective is to provide scientific information to support other management responsibilities of NOAA programs and offices and other agencies (e.g., sanctuary management, coastal and marine spatial planning).

The Regional Research Priorities Workshop report documents these information needs as identified by the workshop participants. The fieldwork team should use the report as a starting point to develop the three-year science plan.

The team should also ensure the research objectives meet the MSA mandate and are in line with the NOAA Strategic Plan for Deep-Sea Coral and Sponge Ecosystems.

In addition, the three-year regional science plan should:

- Clearly articulate the regional **objectives** and expected **deliverables**.
- Integrate the individual activities over the three years into a **coherent whole** (rather than as unconnected activities).
- Budget for the full cost of the planned research including any **post-cruise analyses** of samples, photos, and videos.
- Prepare the fieldwork team to organize data products in the DSCRTP's standardized **data formats**. (See Fieldwork Data Guidance on NOAA's Deep-Sea Coral Data Portal.)
- Be developed in consultation with the **Council** and in coordination with other regional partners as appropriate.
- Be written and implemented in collaboration with each participating **Line Office**, drawing on the relevant strengths and mandates of each Line Office.

The program has a template for the fieldwork team to follow in writing the specific components of the science plan. The three-year plan is supplemented by an annually updated budget and implementation plan.

As the team develops the science plan via conference calls and meetings, they should let the DSCRTP Chief Scientist know the meeting/call schedule. The Chief Scientist's participation on the planning calls/meetings will help align headquarters expectations with regional needs. The final science plan draft should be submitted to the Chief Scientist for approval, preferably by November in the first fiscal year of the three-year period.

The team should also describe in writing the **roles and responsibilities** of the individual members. This document should specify a single point of contact (usually the team lead) to facilitate communications with program headquarters. The Alaska team's roles description is an example.

B3. Additional guidelines

Please refer to the DSCRTP Accountability Policy for guidelines on fieldwork data products, reporting requirements, and outreach messaging.